

LIVE OAK

Quercus virginiana P. Mill.

plant symbol = QUVI

Contributed by: USDA NRCS National Plant Data Center

Alternate Names

Virginia live oak

Uses

Erosion Control: This is an excellent species for reforestation to prevent erosion on originally cleared land for agriculture. It also has the potential for revegetating coal mine spoils.

Wildlife: Live oak acorns are an important food source for many birds and mammals including northern bobwhite, Florida scrub jay, mallard, sapsuckers, wild turkey, black bear, squirrels, and white-tailed deer. This species provides cover for birds and mammals. The rounded clumps of ball moss found in live oak is necessary for nest construction.

Timber: The wood of live oak is heavy and strong but of little use commercially.

Recreation and Beautification: Live oak is used for shade and as an ornamental. It is considered "one of the noblest trees in the world and virtually an emblem of the Old South." Today live oaks are protected for public enjoyment.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

Quercus virginiana, live oak, is most commonly found on the lower coastal plain of the southeastern United States. The tree can grow up to an average of 50 feet in height and 36-48 inches in diameter, but can have trunks over 70 inches in diameter. The bark is furrowed longitudinally, and the small acorns are long and tapered. The bark and twigs are dark to light grayish color and become darker with age. The leaves are thick, shiny, and dark green on top, lighter below. Small flowers are produced when new leaves are grown. The acorn is about 1 inch long with a turban-

shaped cup, and is somewhat narrowed at the base. There are approximately 352 acorns per pound. Root crowns and roots survive fire and sprout vigorously.

Adaptation and Distribution

Live oak grows in moist to dry sites. It withstands occasional floods, but not constant saturation. It is resistant to salt spray and high soil salinity. Live oak grows best in well-drained sandy soils and loam but also grows in clay and alluvial soils. Live oak has moderate shade tolerance.

Live oak is distributed primarily throughout the Southeast. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

Establishment

Live oak has male and female flowers on the same plant. Germination occurs shortly after seed fall if the site is moist and warm. Live oak is fast growing if it well-watered and soil conditions are good. Seedlings can grow 4 feet in the first year. Under ideal conditions, a live oak can attain a trunk diameter at breast height (dbh) of 54 inches in less than 70 years. Live oak sprouts from the collar and roots, and forms dense clones up to 66 feet in diameter.

Management

Once established, live oak withstands competition. It is extremely salt tolerant and this resistance may account for its dominance in many climax coastal forests in the northern part of its range. Dense stands of live oak reduce forage production for livestock. Live oak is extremely hard to kill because of its vigorous root sprouting ability.

Pests and Potential Problems

Some of the pests that cause live oak decline are wilt disease, leaf blister, heartwood decay, gall wasps, and borers which attack roots of young live oak. Live oak is extremely susceptible to damage by freezing temperatures and acid rain.

Cultivars, Improved, and Selected Materials (and area of origin)

There are no known cultivars of live oak at this time. The species can be obtained commercially from forest seed companies.

Prepared By & Species Coordinator:

Lincoln Moore, Forest Biologist
 USDA NRCS National Plant Data Center
 Baton Rouge, LA

For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS <<http://plants.usda.gov>> and Plant Materials Program Web sites <<http://Plant-Materials.nrcs.usda.gov>>.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.